REMARKS

Reconsideration of this application, and the rejection of claims 12, 13, 15, and 20 are respectfully requested. Applicants have attempted to address every objection and ground for rejection in the Office Action dated November 6, 2002 and believe the application is now in condition for allowance. The claims have been amended to more clearly describe the present invention.

Applicants confirm the oral election of Group II, claims 12-20 made by Lisa Soltis on October 25, 2002. Applicants reserve the right to timely file a divisional application on the non-elected, cancelled claims 1-11.

Claims 14 and 16-19 stand objected to as being dependent upon a rejected base claim. Accordingly, new claim 21 is a combination of claims 12, 13 and 14, and new claim 22 is a combination of claims 12, 15 and 16. Thus, these claims are submitted to be allowable. In addition, in view of the foregoing remarks, the rejected base claims are believed to be in condition for allowance.

The specification of the disclosure is objected to due to informalities in the use of the reference number 40. By this Amendment, the specification has been corrected. Also, on page 16 of the specification, use of erroneous symbols around "break away" was identified, and has been corrected. Accordingly, the objections to the specification are respectfully traversed.

Claims 12, 13, 15, and 20 stand rejected under 35 U.S.C. 102(b) as being anticipated by Phillips et al (US 6,019,072). Phillips et al disclose a method for employing an internal combustion fastener driving tool that comprises a regulator 82 attached to a fuel cell 77. The regulator 82 regulates the pressure of gaseous fuel that is delivered to a shuttle valve 61 so that the combustion cycles are consistent and repeatable. The regulator 82 releasably mates with the fuel cell 77 by a circular mating portion 144 in order to provide fluid communication between the two vessels, and is held in place by a latch spring 65. When the latch spring 65 is released, the regulator 82 can be removed from the tool, enabling insertion or removal of the fuel cell 77 (See Fig. 9).

The present application also relates to an internal combustion driving tool. Claim 12 recites, among other things, a combustion tool including an adapter fixed to a fuel cell. The adapter is fixed to the fuel cell via a latch, to provide alignment and fluid communication between the fuel cell and the fuel-metering valve. As now recited in amended claim 12, among other things, the present invention includes a housing including a fuel metering valve, and a fuel cell secured in the housing by the use of an adaptor fixed to the fuel cell. It is contemplated that the fixed adaptor will facilitate the proper alignment of the fuel cell and the fuel-metering valve and will maintain proper fluid communication between these components.

In contrast, Phillips et al neither disclose nor suggest the use of an adapter fixed to a fuel cell in order to secure the fuel cell in the housing of the combustion tool. Instead,

Phillips et al. disclose a complicated and costly structure including the fuel cell, regulator, a latch spring, a latch pin, and a latch slide. The main objective addressed in Phillips et al. is that the releasable mating of the fuel cell and regulator provides consistent fuel cycles and regulates the gas pressure. They are not concerned with the advantages brought about by the use of an adaptor fixed to the fuel cell.

The above amendments to the claims, in view of the foregoing remarks, are believed to place the present application in condition for allowance or in proper condition for appeal. Accordingly, allowance of the application is earnestly solicited.

Attached hereto is a marked-up version of the changes made to the specification by the current amendment. The attached page is captioned "Version with markings to show changes made."

Applicants submit that in view of the above-identified amendments and remarks, the claims in their present form are patentably distinct over the art of record. Allowance of the rejected claims is respectfully requested. Should the Examiner discover there are remaining issues which may be resolved by a telephone interview, he is invited to

contact the undersigned at the telephone number listed below, or Lisa Soltis, Esq., Applicants' attorney of record at (847) 657-7980.

Respectfully submitted,

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VERSION WITH MARKINGS TO SHOW CHANGES MADE

IN THE SPECIFICATION:

The paragraph beginning on page 9, line 5 has been amended as follows:

--In the preferred embodiment, the adapter 16 is provided with a gripping formation 40 which is configured for being engaged by a latch disposed in the fuel cell chamber 12 of the housing 11. This gripping formation 40 may have a variety of shapes. In the embodiment depicted in FIGs. 2-4, corresponding truncated lug ends 36 and the rib ends 38 of the lugs 32 and the support ribs 34 define a [groove] groove-shaped gripping formation 40 that is disposed on the nozzle 20. Although it is preferred that the adapter body 18 have a gripping formation 40 in the form of a groove as just described, it is also contemplated that the gripping formation is alternatively a rib or protrusion, generally radially extending from the adapter body 18. Such protrusions may form an annular rib or may also be individual, spaced, lugs or rib segments.--

The paragraph beginning on page 12, line 8 has been amended as follows:

--In the latch 60, each locking tang 64 has an outside edge 82 defining a shoulder 84. There is also an inside edge 86 forming a surface 88 for engaging the [groove]

groove-shaped gripping formation 40 of the adapter 16. In the preferred embodiment, the surface 88 is arcuate in shape to better grasp the generally circular nozzle 20. However, it is contemplated that the shape of the surface 88, and/or the edge 86 may change to positively engage alternative configurations of the gripping formation 40 as described above.--

The paragraph beginning on page 13, line 5 has been amended as follows:

--In operation, the assembled fuel cell 14 and the adapter 16 are placed into the fuel cell chamber 12 of the tool 10. Once inside the fuel cell chamber 12, the nozzle 20 will come into contact with the latch 60, and the operator will then press the fuel cell 14 inward. The ramped configuration of the lugs 32 spread the locking tangs 64 apart. When the truncated lug ends 36 pass by the biased locking tangs 64, the locking tangs will close, and the inside edge 86 will engage the groove [40] or other configurations of the gripping formation 40 of the adapter 16, so that the lug ends are positioned above the locking tangs and the truncated rib ends 38 are positioned below the locking tangs. In this position, the adapter 16 is securely held inside the tool 10 (best seen in FIG. 4).--

The paragraph beginning on page 14, line 4 has been amended as follows:

--When a user needs to remove the fuel cell 14 from the tool 10, he simply pushes the push button 72 inward against the springs 80, so that as the boss 74 is moved

inward pushing against the inclined surfaces 78 of the locking tangs 64, it progressively separates the locking tangs until the pivoting ends 90 abut the holding pins 96, and the locking tangs disengage from the [groove] groove-shaped gripping formation 40. In this open position 68 (best seen in FIG. 6), the inside edges 86 of the locking tangs 64 form an opening large enough so that the lugs 32 of the adapter 16 are able to freely pass, and the fuel cell 14 can be removed from the fuel cell chamber 12. As the adapter 16 is pulled out of the fuel cell chamber 12 with the spent fuel cell 14, the fuel metering valve stem 98 leaves the frangible membrane 28 pierced, which visually shows that the fuel cell 14 has been used.--

The paragraph beginning on page 16, line 4 has been amended as follows:

--Another feature of the present adapter 100, which may also be found on the adapter 16, is that the spaced supporting ribs 34 are the fastening point of the nozzle 20 to the base 22 and are configured to provide a ["break away"] breakaway action if a user attempts to remove the adapter from the fuel cell 14. Upon shear failure of the ribs 34, the fuel cell adapter 100, 16 cannot be reused on another fuel cell 14, eliminating the introduction of dirt, debris, or impurities that can interfere with the connection during reuse. This single use nature of the present adapter 16, 100 also inhibits the use of refilled or generic fuel cells which may impede the optimal operation of the tool 10. It is contemplated that the shear failure of the support ribs 34 may be caused by varying the

shape, size, thickness, and material composition of the ribs, or by adding scoring or other non-uniformities to the rib structure. The supporting rib structure 34 should include any other means known by one in the art to cause material failure at the rib location upon removal while maintaining sufficient strength to withstand the shock of combustion and the pressure of the gas propellant while in use.--

IN THE CLAIMS:

Please cancel claims 1-11, amend claim 12, and add new claims 21 and 22 as follows:

12. (Amended) A combustion tool comprising:

a housing enclosing a fuel metering valve;

a fuel cell [provided with] fixed to an adapter and configured for being accommodated in said housing in fluid communication with said fuel metering valve; and

a latch disposed in said housing for releasably securing said adapter in said fluid communication with said fuel metering valve, such that said fuel cell is retained in said housing by said engagement of said adapter with said latch.

21. (New) A combustion tool comprising:

a housing enclosing a fuel metering valve;

a fuel cell provided with an adapter and configured for being accommodated in said housing in fluid communication with said fuel metering valve;

a latch disposed in said housing for releasably securing said adapter in said fluid communication with said fuel metering valve;

said adapter has a non-circular profile portion, and said latch includes a bracket configured to accommodate said non-circular profile portion upon insertion or removal of said adapter, and upon rotation of said adapter, said bracket is configured for preventing the removal of said adapter from the tool; and

said non-circular profile portion includes a plurality of circumferentially spaced lugs, and said bracket defines an opening with a plurality of inwardly radially projecting spaced tabs, said tabs being constructed and arranged so that said lugs can pass between them when said adapter is inserted or withdrawn, and upon rotation of said adapter, said tabs engage said lugs to prevent withdrawal of said adapter.

22. (New) A combustion tool comprising:

a housing enclosing a fuel metering valve;

a fuel cell provided with an adapter and configured for being accommodated in said housing in fluid communication with said fuel metering valve;

a latch disposed in said housing for releasably securing said adapter in said fluid communication with said fuel metering valve;

said latch includes at least one biased locking member for releasably retaining said adapter in engagement with said fuel metering valve; and

said latch includes a bracket configured to receive and retain said adapter in a push-and-rotate motion, said locking member is constructed and arranged to engage said adapter to prevent rotation of said adapter.